

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)							February 2002					
BUDGET ACTIVITY 5 - Engineering and manufacturing development				PE NUMBER AND TITLE 0604819A - LOSAT					PROJECT 046			
COST (In Thousands)				FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
046	LINE-OF-SIGHT ANTI-TANK (LOSAT) MISSILE			25364	21416	14463	15183	16160	0	0	0	92586
<p><u>A. Mission Description and Budget Item Justification:</u> Line-of-Sight Anti-Tank (LOSAT) and the Kinetic Energy Missile (KEM) technology provides the foundation for the Objective Force Kinetic Energy Missile Requirement. This program focuses on the integration of the LOSAT weapon system into a light, early deployable configuration in order to help remedy the urgent need for the early entry force lethality shortfall against heavy armor in support of the Army Transformation. The LOSAT weapon system consists of a kinetic energy (KE) missile launcher mounted on a heavy High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) chassis. LOSAT offers a highly mobile, near-term, advanced capability for overwhelming armor destruction with a high rate of fire, increased range, and increased force survivability. LOSAT, deployed in the early entry force, will provide the decisive edge to win swiftly with minimum casualties and with an assault support weapon capability. LOSAT is strategically and tactically deployable, giving commanders and decision makers greater flexibility. Once in theatre, LOSAT is extremely mobile, to include air droppable and sling loading under CH-47 and UH-60L aircraft. The performance of the hypervelocity (velocity of a mile per second) kinetic energy missile is not affected by the proliferation of emerging threat active protective systems and enhanced reactive armors which are rapidly becoming available on the global marketplace. In FY98, LOSAT was initiated as a DOD-approved Advanced Concept Technology Demonstration (ACTD) program to position it for future acquisition decisions, demonstration of subsystem capabilities in flight tests and dirty battlefield environments, evaluation of its utility for early entry forces, demonstration of an integrated HMMWV-based LOSAT system in-flight tests and advanced warfighting experiments, and evaluation of affordability issues. In December 1999, the Army and DOD funded the LOSAT accelerated advanced development and procurement as part of the Army Transformation, adding additional design activities, test hardware, and qualification and operational tests concurrent with the ACTD, which will assure design maturity to support entry into Low Rate Initial Production (LRIP) in FY 04. The System Development Demonstration (SDD) effort is funded in this Program Element (PE) and is concurrent with the ACTD contract. The ACTD is funded in PE 0603654A. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).</p>												
<p><u>FY 2001 Accomplishments:</u></p> <ul style="list-style-type: none">3380 Updated Performance Specifications to include new Operational Requirements Document.10284 Updated Missile and Fire Unit preliminary designs to incorporate new Performance Specification Requirements.1740 Updated Fire Unit software requirements analysis to incorporate new Performance Specification Requirements.2502 Conducted Reliability, Maintainability, Producibility analyses.												

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<p><u>FY 2001 Accomplishments: (Continued)</u></p> <ul style="list-style-type: none"> 4560 Began incorporating enhanced Built-in-test/Built-in-test equipment requirements into electronic components of Fire Unit and Missile. 2898 Began Supportability analysis to support production/fielding objectives. <p>Total 25364</p> <p><u>FY 2002 Planned Program</u></p> <ul style="list-style-type: none"> 8095 Complete Fire Unit detail designs incorporating new performance specification requirements, and initiate fabrication of new hardware requirements. 2145 Complete Missile detail designs incorporating new performance specification requirements. 2298 Begin Missile fabrication, assembly, and test of additional qualification test hardware. 1001 Finalize design modifications and initiate fabrication of resupply trailer and HMMWV. 2385 Finalize software enhancements and BIT/BITE software into Fire Unit software. 5492 Continue supportability analysis to support production/fielding objectives. <p>Total 21416</p> <p><u>FY 2003 Planned Program</u></p> <ul style="list-style-type: none"> 2974 Complete delivery of enhanced Fire Unit designs and perform full environmental qualification tests. 2635 Complete delivery of enhanced missile designs and perform full environmental qualification tests and flight tests (PQT). 1554 Complete software upgrades and perform system level certification. 5909 Finalize Logistics Management Information and perform Supportability demonstration. 1391 Deliver enhanced training simulators and conduct soldier training in preparation. <p>Total 14463</p>		

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<u>B. Program Change Summary</u>					FY 2001	FY 2002	FY 2003						
Previous President's Budget (FY2002/03 PB)					26555	21596	14176						
Appropriated Value					26800	21596	0						
Adjustments to Appropriated Value					0	0	0						
a. Congressional General Reductions					0	-180	0						
b. SBIR / STTR					-790	0	0						
c. Omnibus or Other Above Threshold Reductions					0	0	0						
d. Below Threshold Reprogramming					-400	0	0						
e. Rescissions					-246	0	0						
Adjustments to Budget Years Since FY2002/03 PB					0	0	287						
Current Budget Submit (FY 2003 PB)					25364	21416	14463						
<u>C. Other Program Funding Summary</u>					FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
H09100 LOSAT					0	9361	17937	61391	108794	112773	111693	0	421949
0603654A Line-of-Sight Technology Demo					50262	69859	28283	0	0	0	0	0	185730
<u>C. Other Program Funding Summary:</u> *FY02 Advance Procurement and FY03 procurement funds will procure 144 missiles which is the residual inventory of the ACTD effort.													

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D. Acquisition Strategy: The Line-of-Sight Anti-Tank additional development and qualification effort to support the Army Transformation will be conducted in conjunction with the on-going ACTD effort. The ACTD contract awarded in April 1998 was modified in December 2000 to include the SDD effort. A Milestone Decision Review will be conducted in FY04 to assess design maturity and authorize entry into Low Rate Initial Production (LRIP).

<u>E. Schedule Profile</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Award Risk Reduction Design and Test	1Q						
Complete Preliminary Design Reviews	4Q						
Critical Design Review		2Q					
Begin Missile and Fire Unit Assembly		3Q					
Complete Component Level Qualifications			1Q				
Begin System Qualification and Flight Tests			2Q				
Begin User Experimentation			3Q				
Limited User Testing				1Q			
Milestone C				1Q			
Complete System Qualification and Flight Tests				2Q			
First Unit Equipped (FUE)				4Q			
IOTE					2Q		
Begin Fielding						2Q	

ARMY RDT&E COST ANALYSIS(R-3)									February 2002			
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . SDD Contract	CPIF	LMMFC, Dallas, TX	0	18515	1Q	11706	1Q	7793	1Q	11747	49761	0
b . Live Fire Hardware	CPFF	Alliant Tech	0	1610	2Q	0		0		0	1610	0
c . RDEC Support	TBD	Huntsville, AL	0	322		2750		1558		760	5390	0
d . Follow-on-Development	TBD	TBD	0	0		0		0		0	0	0
Subtotal:			0	20447		14456		9351		12507	56761	0
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . In-House Support			0	2093		3105		3094		6709	15001	0
b . Functional Government Support			0	170		615		261		901	1947	0
c . MISC			0	888		867		20		967	2742	0
d . OGA			0	89		73		20		270	452	0

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II. Support Cost (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	3240		4660		3395		8847	20142	0
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Range Support			0	181		432		785		4120	5518	0
b . Other Test			0	339		457		268		4320	5384	0
c . GFE			0	366		0		0		0	366	0
Subtotal:			0	886		889		1053		8440	11268	0

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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Engineering Tech Asst		Huntsville, AL	0	791		1411		664		1549	4415	0
Subtotal:			0	791		1411		664		1549	4415	0
Project Total Cost:			0	25364		21416		14463		31343	92586	0